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The Distribution of Mammals in Natal. Part 2. Carnivora

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SYNOPSIS

The distribution patterns of the following thirty-one species of mammals are recorded: *Proteles cristatus, Aonyx capensis, Lutra maculicollis, Mellivora capensis, Ictonyx capensis, Poecilogale albinucha, Genetta genetta, G. tigrina, Viverra civetta, Mungos mungo, Paracynictis selousi, Cynictis penicillata, Helogale parvula, Atilax paludinosus, Herpestes ichneumon, H. pulverulentus, H. sanguineus, Ichneumia albicauda, Lycaon pictus, Vulpes chama, Canis mesomelas, C. adustus, Acinonyx jubatus, Panthera pardus, P. leo, Felis caracal, F. libyca, F. serval, F. nigripes, Hyaena brunnea, Crocuta crocuta.* The status of each species is also discussed.

General distribution records of Carnivora are dealt with in such publications as Allen (1939), Roberts (1951), Ellerman, Morrison-Scott & Hayman (1953), *Identification Manual for African Mammals* edited by J. Meester in particular the sections by Coetzee (in press), Smithers (1968) and Rosevear (1974). The results of collecting trips to Natal and adjoining areas are published by Thomas & Schwann (1906), Roberts (1929, 1931, 1936, 1938, 1946, 1948), Lundholm (1955*a*) and Lynch (1975). Certain groups are revised by Thomas (1882), Allen (1924) and Pocock (1951), while Von Richter (1972) reviews the status of certain Carnivora. More recently checklists were published of species in certain proclaimed Reserves in Natal such as the Mkuzi and Ndumu Game Reserves by Dixon (1964, 1966) and the Hluhluwe Game Reserve—Corridor—Umfolosi Game Reserve complex by Bourquin, Vincent & Hitchins (1971). A detailed study entitled *The Biology of Natal Mustelids* was completed in 1975 by Mr D. Rowe-Rowe.

The Natal Museum collection of Carnivora formed the basis of this investigation, while the collections in the Transvaal and Kaffrarian Museums were also examined. Each specimen or sight record is indicated separately on the relevant map.

I wish to thank the Natal Museum Council and Dr B. R. Stuckenberg, Director, for providing research accommodation and facilities. I am also grateful to the rangers of the Natal Parks Board who supplied information regarding the status of species within the reserves under their control.

I wish to thank Professor J. Meester for valuable comments during the preparation of this paper and for reading the manuscript.

Order CARNIVORA

Key to the families

1.	Cheek teeth rudimentary and widely separated	**Protelidae**
	Cheek teeth well developed and in contact	2
2.	One or more functional upper molars	3
	Upper molars functionless or absent	5
3.	One functional upper molar	**Mustelidae**
	Two or more functional upper molars	4

4. Teeth 36–40 . . . . . **Viverridae**
   Teeth 42–46 . . . . . **Canidae**
5. Teeth 30 or less: 5 fingers . . . . . **Felidae**
   Teeth 32–34: 4 fingers . . . . . **Hyaenidae**

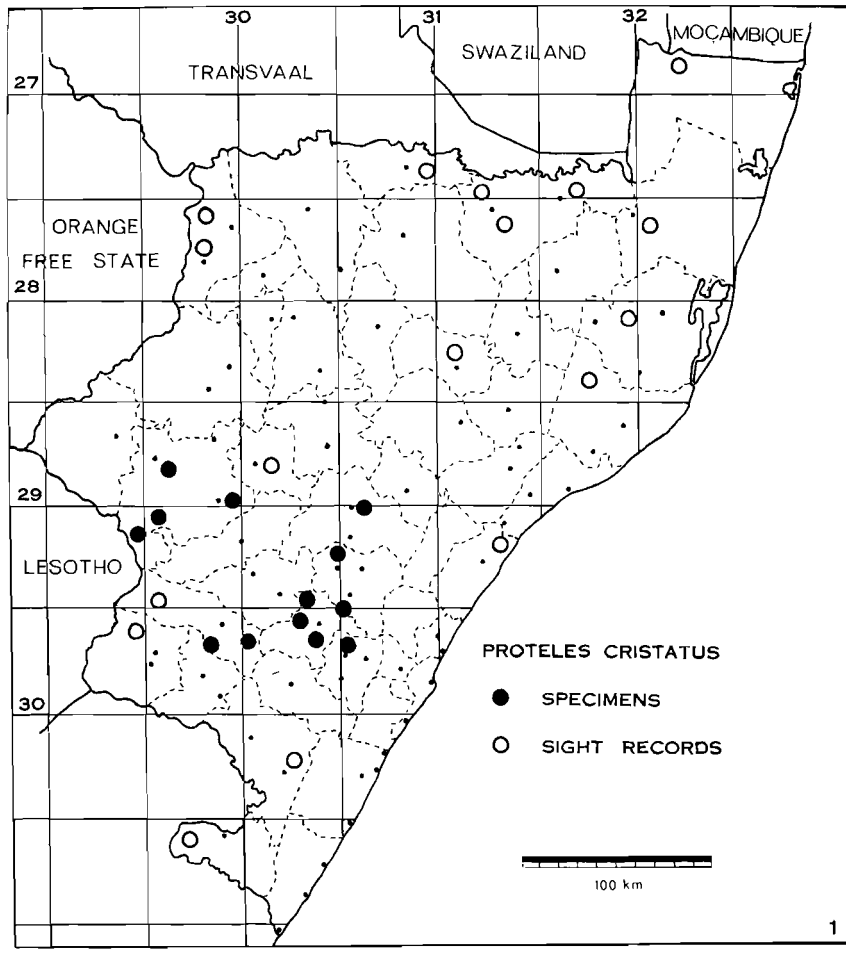
Family PROTELIDAE

Genus *Proteles* I. Geoffroy, 1824

Proteles cristatus cristatus Sparrman, 1783. Near the Little Fish River, Somerset East, Cape Province (Map 1)

Distribution: Widespread throughout Natal from the coast to the foothills of the Drakensberg.

Status: Common in Itala and Mkuzi Reserves, rare in Loteni, Giants Castle, Hluhluwe, Umfolosi and Ndumu. Used to be fairly common outside the Reserves but becoming rare.



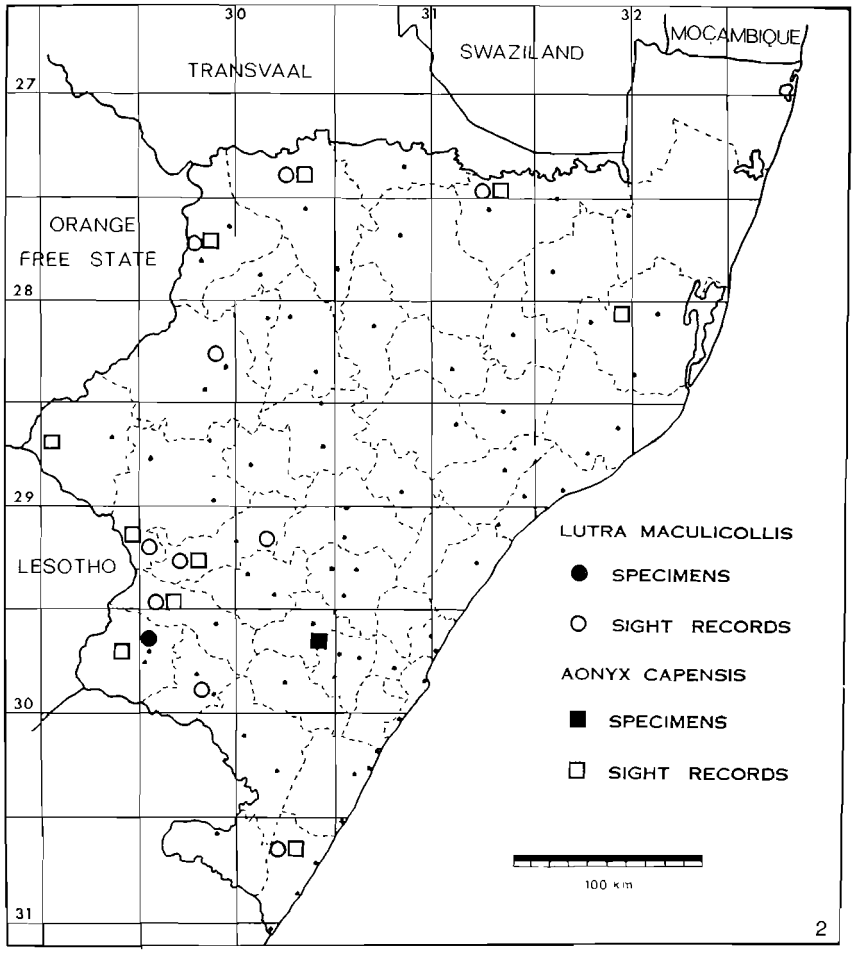
Family MUSTELIDAE

Key to the genera

1. Tail long, thick and muscular at the base; 5 upper cheek teeth; feet webbed; upper molar dominant 2
   Tail not thickened at the base; 4 or less upper cheek teeth, feet not webbed; upper molar not dominant 3
2. Claws rudimentary or absent . . . . . **Aonyx**
   Claws present but flattened into nails . . . . . **Lutra**
3. Tail less than half the length of head and body . . . . . **Mellivora**
   Tail more than half the length of head and body 4
4. Two lower molars and 34 teeth; hair on the body long and bushy . **Ictonyx**
   One lower molar and 28–30 teeth; hair on the body short and sleek **Poecilogale**

Genus *Aonyx* Lesson, 1827

Aonyx capensis capensis Schinz, 1821. Cape of Good Hope (Map 2)



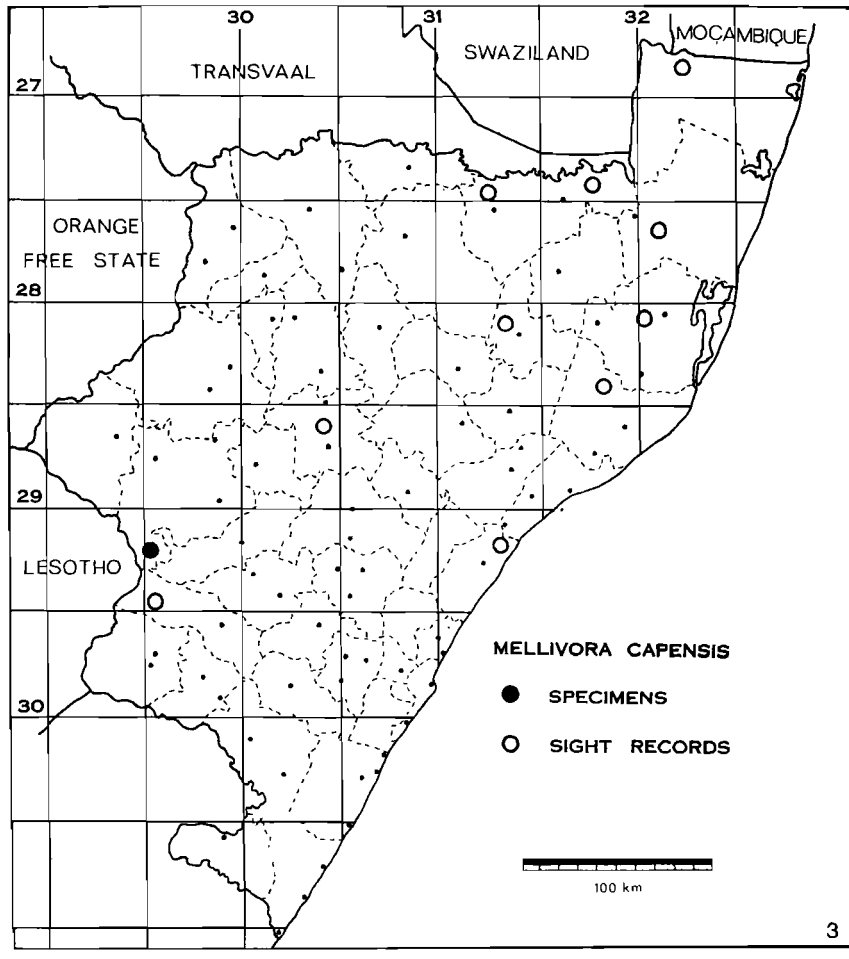
Distribution: Widely distributed along rivers and streams from the coast to the foothills of the Drakensberg.
Status: Common in Royal National, Giants Castle, Kamberg, Oribi and Krantzkloof Reserves, rare in Loteni, Hluhluwe and Itala and absent in Mkuzi and Ndumu. Also present outside the Reserves.

Genus *Lutra* Brisson, 1762

Lutra maculicollis maculicollis Lichtenstein, 1835. 'Am ostlichen Abhange der Bamberg Kafferland.' Bamboo Mountains, near Sterkstroom, Cape Province. (Map 2)
Distribution: Occurs inland and is absent from the coastal area except in the south.
Status: Common in Giants Castles, Kamberg, Oribi Gorge and Krantzkloof Reserves. Rare in Loteni and Itala and absent in Hluhluwe, Mkuzi, Ndumu and Royal National. The two species of otters often occur in the same area but Lutra is rarer.

Genus Mellivora Storr 1780

Mellivora capensis capensis Schreber, 1776. Cape of Good Hope (Map 3)



Distribution: Present in the following Reserves: Ndumu, Mkuzi, Hluhluwe, Mfolosi, Itala, Giants Castle and Oribi Gorge.

There is a skull in the Natal Museum from Giants Castle which was collected in 1918, and no specimens have been received by the Museum since.

Status: Rare in Natal; seen more often in Ndumu Reserve than anywhere else.

Genus *Ictonyx* Kaup, 1835.

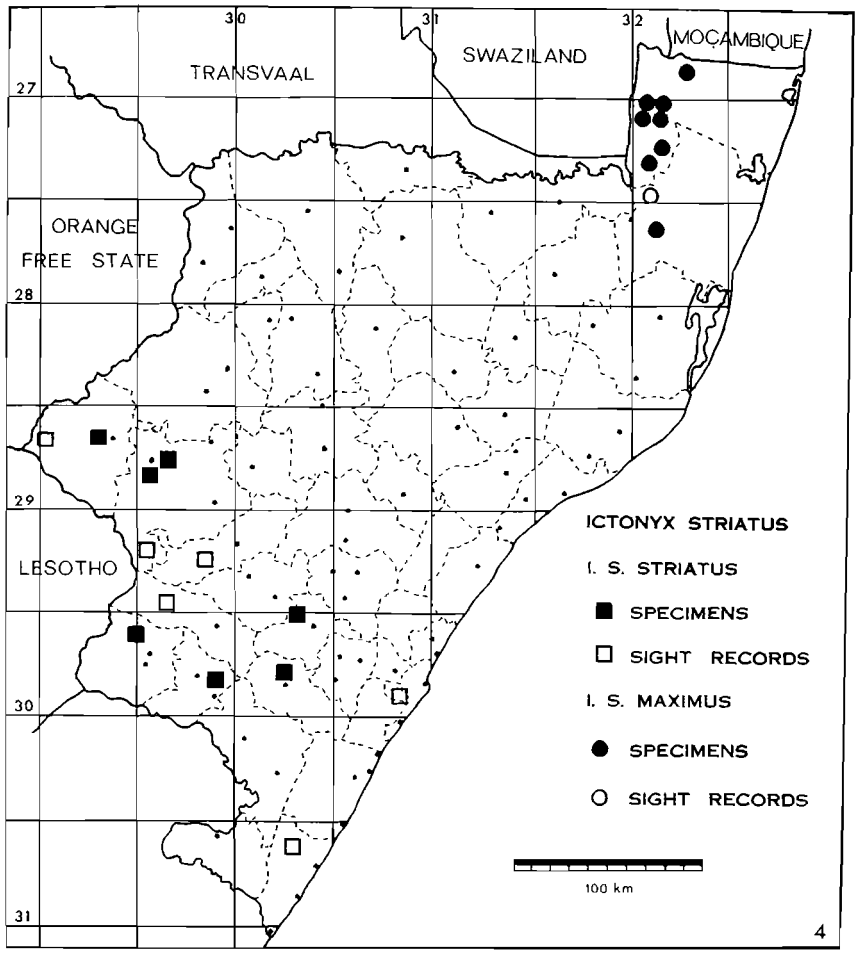
Ictonyx striatus Perry, 1810. Cape of Good Hope (Map 4)

Key to subspecies

1. Mid-dorsal white stripes distinct and continuous or almost so; upper *P3* and *M1* smaller . . . . . **striatus**
   Mid dorsal white stripes less distinct and not continuous; upper *P3* and *M1* large . . . . . **maximus**

Ictonyx striatus striatus Perry, 1810

Ictonyx striatus maximus Roberts, 1924



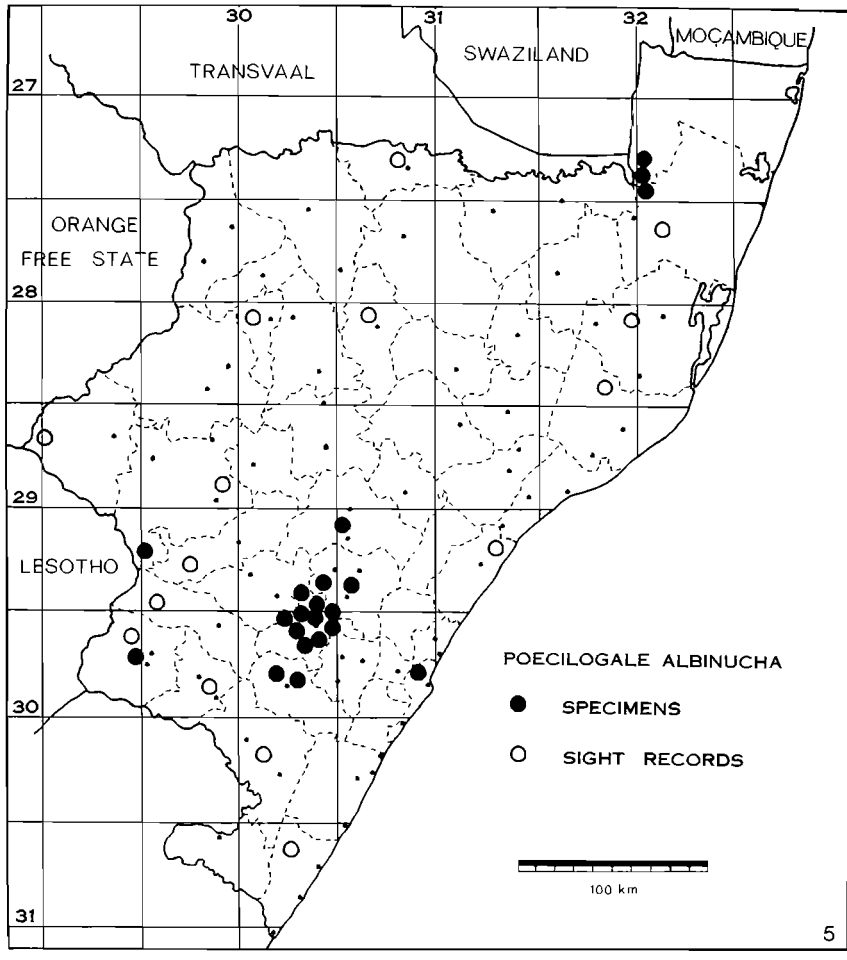
Distribution: *I. s. striatus* occurs in the southern part of Natal while *I. s. maximus* is found in the north. A number of sight records are available in the intermediate area between the distribution of these two subspecies but as these cannot be determined they are omitted. Owing to the limited number of specimens available the range of each subspecies cannot be defined.

Status: Present in Kamberg, Loteni, Oribi Gorge and Ndumu Reserves, rare in Hluhluwe, Umfolozi, Mkuzi, Giants Castle, and Royal National. Occurs throughout Natal, but rare.

Genus *Poecilogale* Thomas, 1883

Poecilogale albinucha albinucha Gray, 1864. Locality unknown 'but Cape of Good Hope may be assumed' (G. Allen 1939) (Map 5)

Taxonomy. In 1931 Roberts described *P. a. lebombo* from Ubombo on the basis that the specimens were smaller than those of *P. a. albinucha*. The following table gives comparative figures.



Locality	*Head & body* (*mm*)	*tail* (*mm*)	*sex*
Ubombo	240	158	♀
Ubombo	250	153	♀
Ubombo	270	155	♂
Pietermaritzburg	240	149	—
Hilton	273	138	♂
Pietermaritzburg	280	140	♀
Pietermaritzburg	310	190	♂
Pietermaritzburg	315	190	♂
Pietermaritzburg	320	200	♂
Pietermaritzburg	320	180	♂

It is obvious that the measurements of the first three specimens from Ubombo (Zululand) fall within the range of those farther south. On this basis, *P. a. lebombo* is not regarded as a valid subspecies.

Status: Present in Royal National, Kamberg, Oribi Gorge and Giants Castle Reserves. Widely distributed in Natal, but rare.

Family VIVERRIDAE

Key to genera

1. Body with black or red spots; tail ringed partly or throughout its length . . 2
   Body without spots; tail not ringed 3
2. Claws retractible . . . . . **Genetta**
   Claws not retractible . . . . . **Viverra**
3. Body with transverse bands . . . . . **Mungos**
   Body without transverse bands 4
4. Four toes on front feet . . . . . **Paracynictis**
   Five toes on front feet 5
5. Four toes on hind feet . . . . . **Cynictis**
   Five toes on hind feet 6
6. Adult head and body less than 25 cm . . . . . **Helogale**
   Adult head and body more than 25 cm 7
7. 9 teeth in both upper and lower jaw on each side . . . . . **Atilax**
   10 teeth in both upper and lower jaw on each side 8
8. Digits 2–5 with webs . . . . . **Herpestes**
   Digits 2–5 without webs . . . . . **Ichneumia**

Genus *Genetta* Oken, 1816

Key to species

1. Tip of the tail white or grey, chin dark . . . . . **genetta**
   Tip of the tail black or red, chin grey . . . . . **tigrina**

Genetta genetta pulchra Matschie, 1902. Okavango River, northern South West Africa (Map 6)

This western subspecies, which also occurs in the Orange Free State, is represented in the Natal Museum collection by a single specimen from Bergville, which was

collected in 1972. This represents a considerable eastwards extension of its known range.

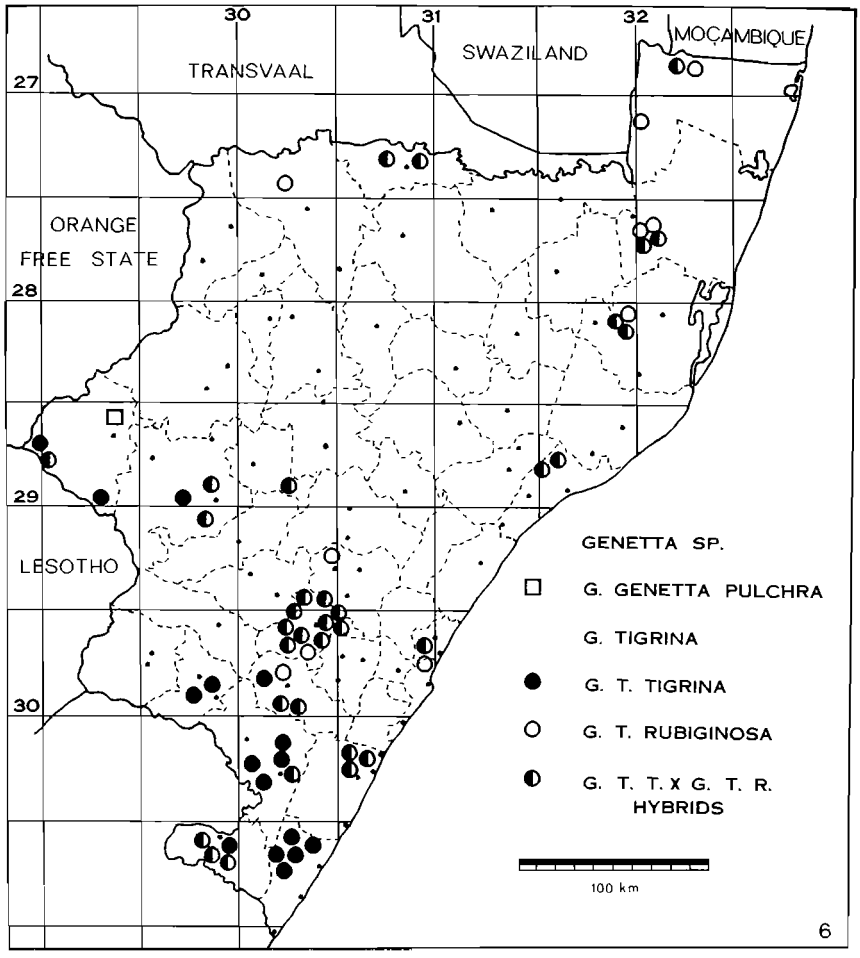
Genetta tigrina Schreber, 1776. Cape of Good Hope (Map 6)

Key to the subspecies

1. Dorsal and lateral spots predominantly black with a few red-tipped hairs interspersed; hind feet mostly black or dark . . . . . **tigrina**
   Dorsal and lateral spots predominantly red with a few black hairs interspersed; hind feet mostly grey or light . . . . . **rubiginosa**

Viverra tigrina Schreber, 1776. *Die Saugethiere*. p. 115, text 1777, 3: 425.
Genetta rubiginosa Pucheran, 1855. *Rev. zool.* Paris. 7: 154.

Distribution: The ranges of these two subspecies in Natal can be separated by a line drawn from Oliviershoek Pass to Bergville, Estcourt, Nottingham Road, Richmond, Highflats to Port Shepstone. Typical specimens of *G. t. tigrina* occur to the



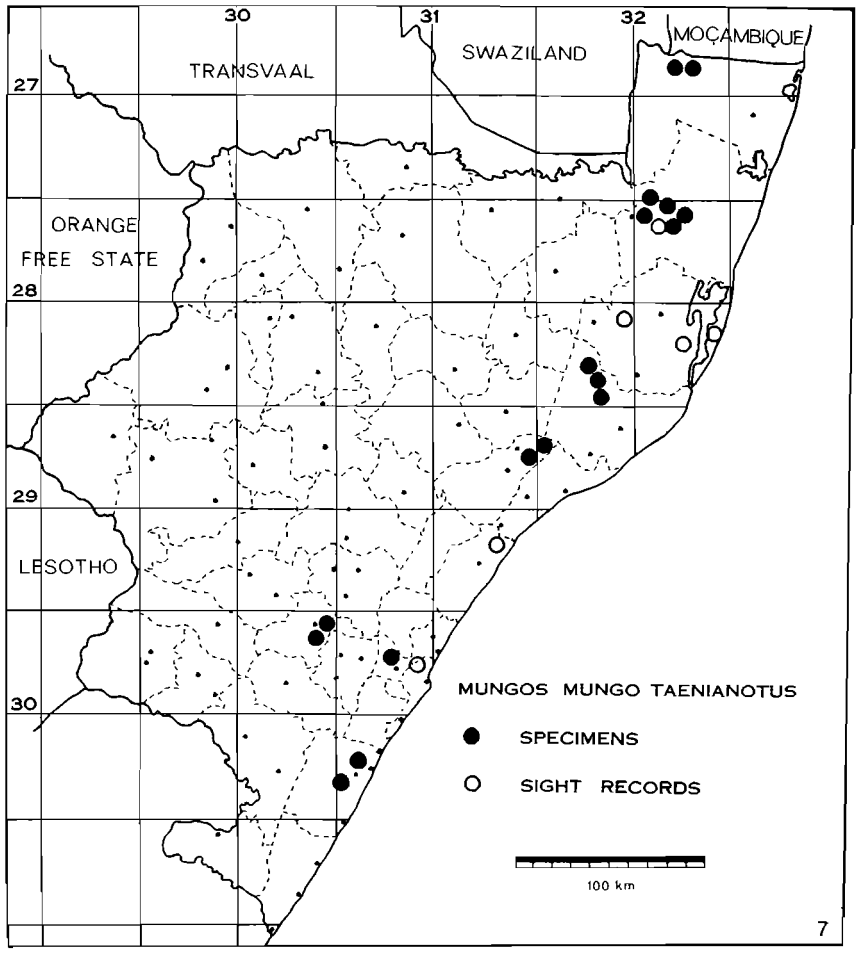
south of this line, while typical specimens of *G. t. rubiginosa* occur to the north of it. These two subspecies have interbred and the hybrid progeny occur both to the north and south of this line. Of the 59 specimens available for examination from Natal half are hybrids. The dorsal and lateral spots in hybrid specimens vary considerably and exhibit a random mixture of red and black-tipped hairs. The mid-dorsal stripe is usually dark with a red tinge in some specimens.

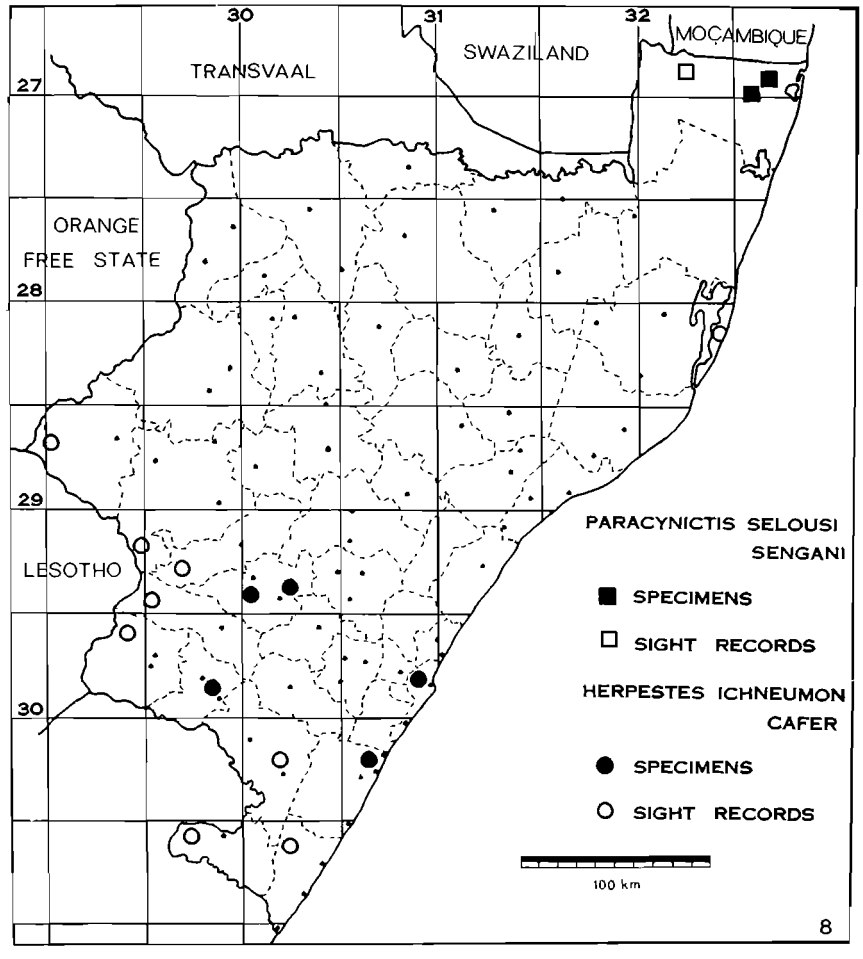
Status: Genets are common in Hluhluwe, Ndumu, Itala, Mkuzi, Umfolosi and Oribi Gorge Reserves but are becoming rarer elsewhere and are absent from the central grassland area.

Genus *Viverra* Linnaeus

Viverra civetta civetta Schreber, 1778. French Guinea

Distribution: No specimens from Natal are available in any museums. The following are sight records: on the flats towards Lake Sordwana and Lake Sibaya (Dixon 1964); Pongola Flats (A. Goss); near Makane's Pont at the Pongola River in 1973



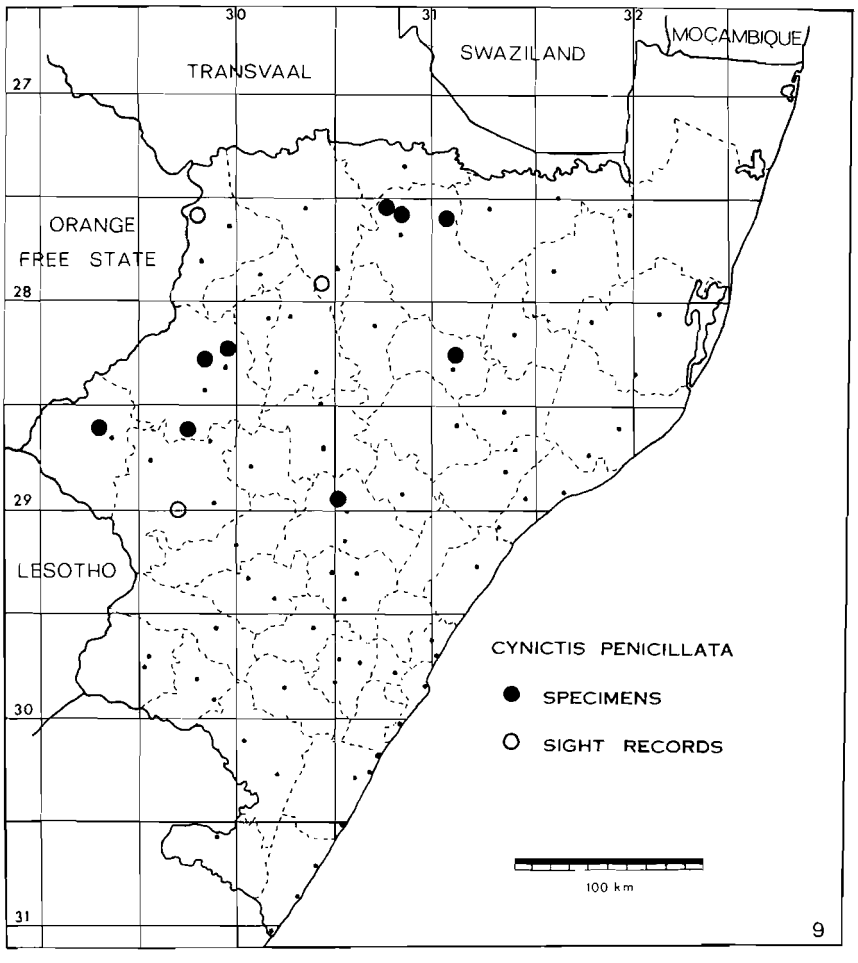


(Dr P. de Moor); near Ingwavuma in 1973; a skin was seen in the possession of a Bantu near Ndumu Reserve (A. J. Tomkinson).
Status: Rare.

Genus *Mungos* E. Geoffroy & G. Cuvier, 1795

Mungos mungo Gmelin, 1788 (Map 7)

Taxonomy: As the type specimen had no locality data, the type locality was given as 'Asia'. Ogilby (1835) realized that the specimen came from Africa and not Asia, and fixed the type locality as Gambia. Since then various suggestions have been made regarding the type locality. Thomas (1882) and Allen (1924) believed that the specimen came from the eastern part of the Cape Province. However, no specimens have ever been recorded from the eastern Cape or Transkei. Roberts (1929) stated that it was 'by common consent to be Natal', but there were no known collectors in this area before 1788. It therefore seems that Gambia is still the most likely type locality even although specimens are rare in this area.



Mungos mungo taenianotus (A. Smith, 1834)

Distribution: It occurs in the coastal region as far south as Umdoni Park, but its range never extends inland for more than 80 kilometres.
Status: Common.

Genus *Paracynictis* Pocock, 1916

Paracynictis selousi (De Winton, 1896). Essex Vale, near Bulawayo (Map 8)
Paracynictis selousi sengaani Roberts, 1931. Maputa, Zululand.

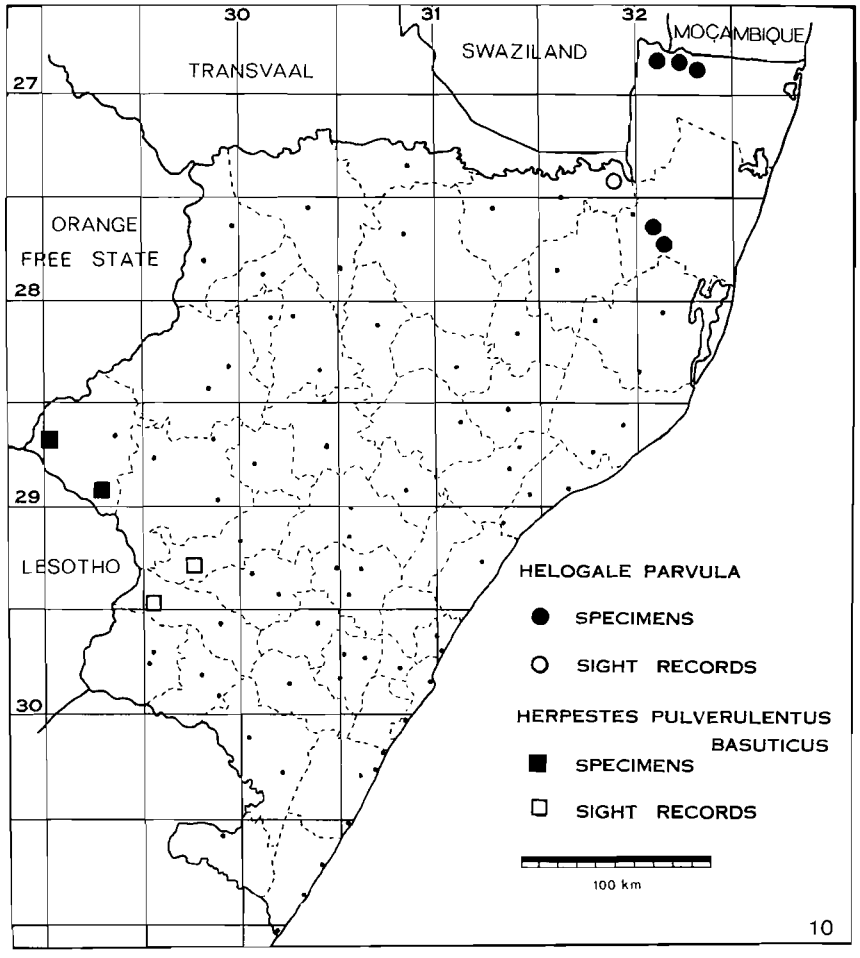
Distribution: Restricted to the extreme northern part of the Ingwavuma District. The two specimens which Roberts collected at Maputa in 1931 are the only records.
Status: Rare.

Genus *Cynictis* Ogilby, 1833

Cynictis penicillata G. Cuvier, 1829. Cape of Good Hope (Map 9)

Taxonomy: Lundholm (1955) investigated the validity of the ten subspecies described

from southern Africa. He found that the colour and length of hair at various points on the body, which was used to distinguish the subspecies, varied seasonally. As such characters are of no taxonomic significance, he rejected all subspecies. At the time of his investigation he had 450 specimens available but none came from Natal. Since then nine specimens have been collected in this province and these exhibit the same seasonal pelage variations. Furthermore the average length of head, body and tail of these Natal specimens falls within the range given by Lundholm. The adult skull lengths increase from the smallest, which occur in the Kalahari and measure 57 mm, to the largest from Natal which reach 67 mm. The average lengths of seven adult skulls from Natal is 66,3 mm which exceeds the average given by Lundholm by 3,7 mm.
Distribution: This species is widely but sparsely distributed in the midlands of Natal and is only found in grassland areas.
Status: Fairly common. Each colony has about five individuals and colonies are widely separated. The numbers appear to be static.



Genus *Helogale* Gray, 1862

Helogale parvula parvula Sundevall, 1846. 'Caffraria superiore juxta tropicum.' Roberts nominated Zoutspansberg, northern Transvaal as the type locality (Map 10)

Distribution: Restricted to the districts of Ingwavuma, Ubombo and the eastern portion of Ngotsche District.

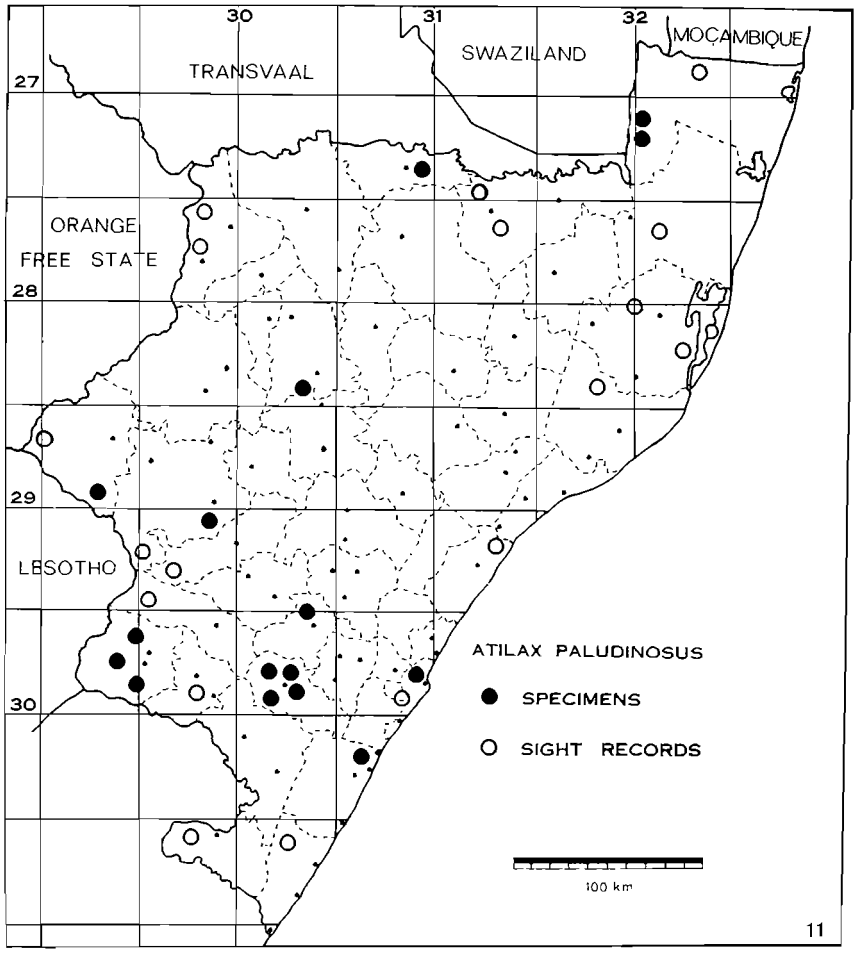
Status: Rare. Small parties are sometimes seen in the Ndumu and Mkuzi Reserves.

Genus *Atilax* F. Cuvier, 1826

Atilax paludinosus paludinosus G. Cuvier, 1829. Cape of Good Hope (Map 11)

Distribution: Widely distributed throughout Natal along rivers and streams.

Status: Common in Royal National, Giants Castle, Kamberg, Loteni, Oribi Gorge, St Lucia and Ndumu Reserves; rare in Hluhluwe, Itala and Mkuzi. Fairly common outside the Reserves.



Genus *Herpestes* Illiger, 1811

Key to species

1. Head and body length over 450 mm; skull over 90 mm . . . . **ichneumon**
   Head and body length less than 450 mm; skull less than 90 mm 2
2. Body reddish or yellowish; dark tail tip distinct . . . . . **sanguineas**
   Body grey; dark tail tip indistinct or absent . . . . . **pulverulentus**

Herpestes ichneumon Linnaeus, 1758. Egypt

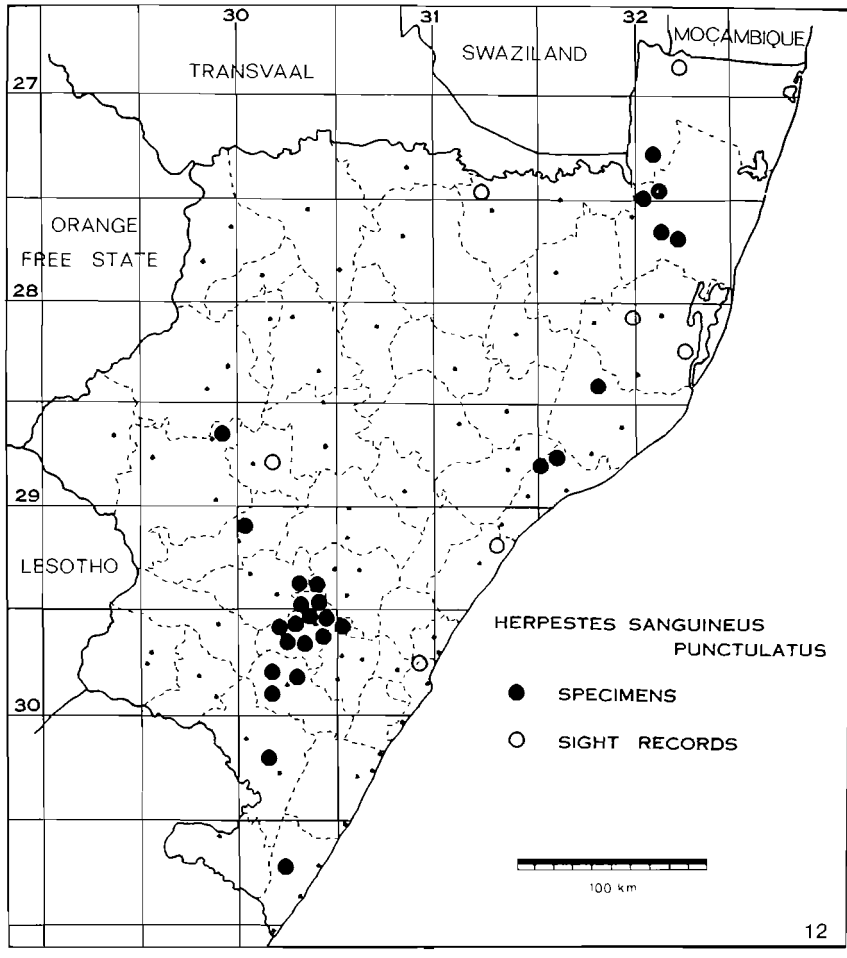
Herpestes ichneumon cafer Gmelin, 1788. Cape of Good Hope (Map 8)

Distribution: Confined to the southern part of Natal from the coast to the foothills of the Drakensberg.

Status: Rare.

Herpestes sanguineus Ruppell, 1836. Kordofan, Sudan

Herpestes sanguineus punctulatus Gray, 1849. 'Port Natal'—Durban (Map 12)



Distribution: Extends along the coast and some distance into the midlands but does not reach the Drakensberg.
Status: Common in Hluhluwe, Umfolosi, Itala, Mkuzi, Oribi Gorge and Ndumu Reserves. Common in the coastal area.

Herpestes pulverulentus Wagner, 1839. Cape of Good Hope

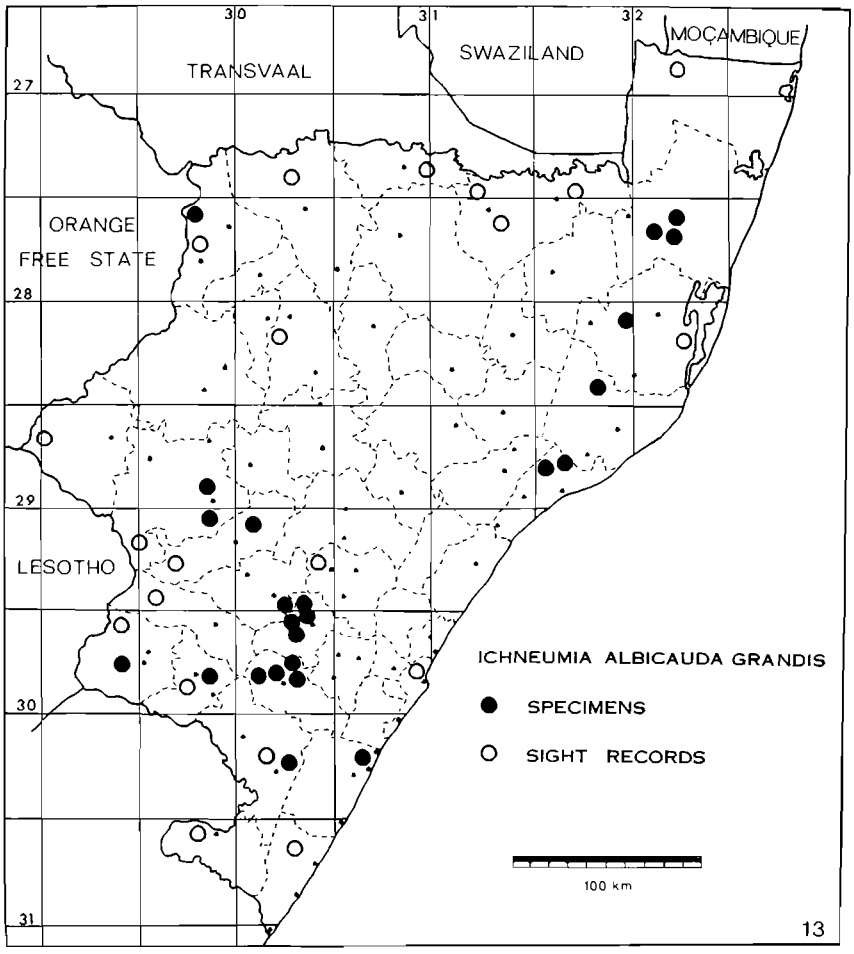
Herpestes pulverulentus basuticus Roberts, 1936. Maluti Mountains, Lesotho (Map 10)

Distribution: Confined to the slopes of the Drakensberg, from Royal National to Giants Castle Reserves. It has recently entered Natal from Lesotho and the first specimen was recorded in 1972.
Status: Rare.

Genus *Ichneumia* I. Geoffroy, 1837

Ichneumia albicauda G. Cuvier, 1829. Senegal.

Ichneumia albicauda grandis Thomas, 1890. 'Believed to have been collected either on



the Limpopo or in Zululand.' Roberts (1935) nominated Hectorspruit as the type locality (Map 13)

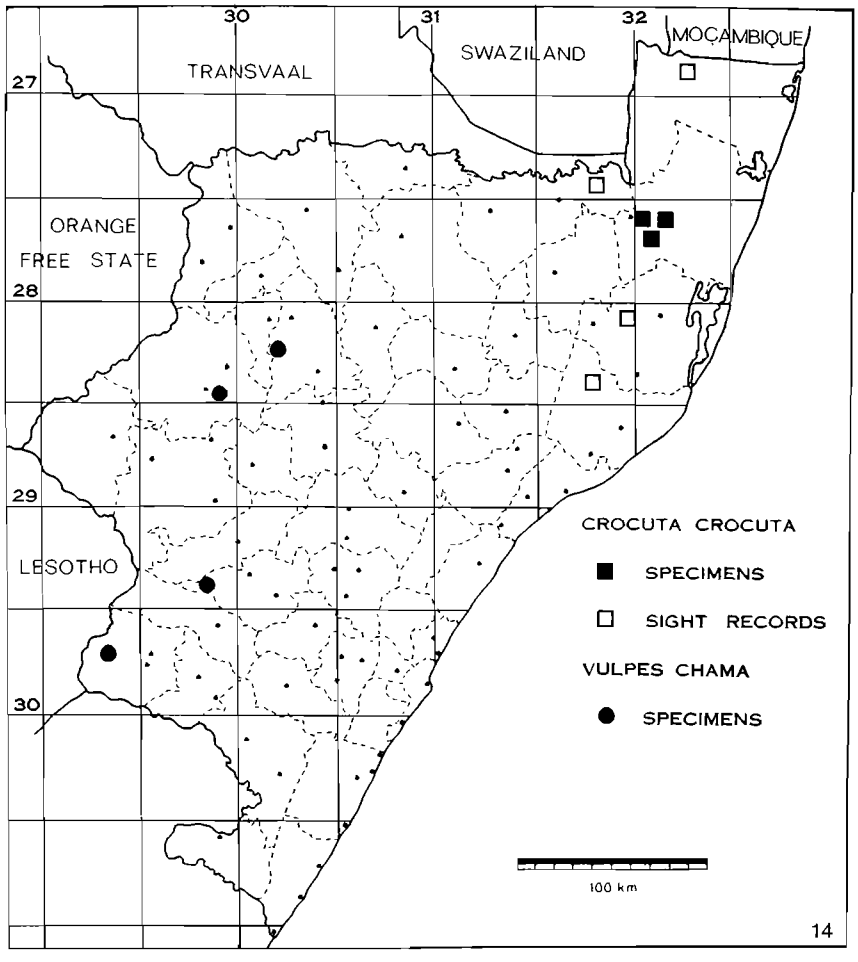
Distribution: Widely distributed from the coast to the foothills of the Drakensberg.

Status: Common in Giants Castle, Kamberg, Loteni, Hluhluwe, Umfolosi, Mkuzi and Ndumu Reserves; rare in Royal National and Itala. Outside the Reserves it is common in parts of southern Natal but is absent from the grassveld of the midlands. In most specimens the terminal half of the tail is white, but in 3 out of 23 specimens from Natal the tail is black.

Family CANIDAE

Key to genera

1. 4 toes on forefeet, body covered with large irregular black, yellow and white markings . . . . . **Lycaon**
   5 toes on forefeet, body not marked as above 2
2. Tail more than half the length of the head and body . . . . . **Vulpes**
   Tail less than half the length of head and body . . . . . **Canis**



Genus *Lycaon* Brookes, 1827

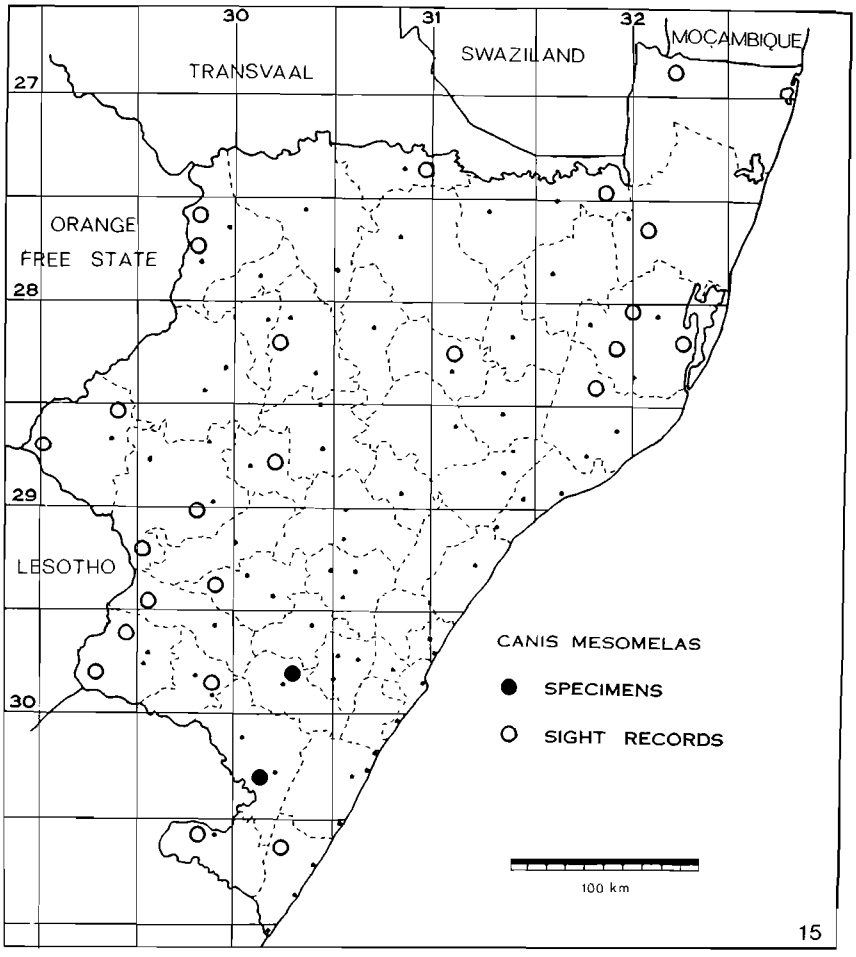
Lycaon pictus pictus Temminck, 1829. Coast of Mozambique.

Distribution: Originally this species was fairly widespread in Natal as the following personal communications indicate: a pack moved through the Underberg District in 1910 (R. Gold). One was shot near Giants Castle Reserve in 1915 (T. McLean); in 1923 a pack passed through the midlands and was driven over the Drakensberg by a hunting party (P. R. Barnes); one was seen on the Pongola Flats about 1920 (A. Goss). The last pack was recorded in Zululand in 1930 and after that only stragglers were encountered; one appeared in the Mkuzi Reserve in 1947–8 (J. Dixon); two were shot on the Pevaan River near Vryheid in 1960 (G. Shakelford).

Status: Probably extinct in Natal.

Genus *Vulpes* Oken, 1816

Vulpes chama A. Smith, 1833. Namaqualand and the country on both sides of the Orange River (Map 14)



Distribution: Western portion of Natal. The few records probably represent individuals which crossed over the Drakensberg from the Orange Free State.
Status: Probably no resident population.

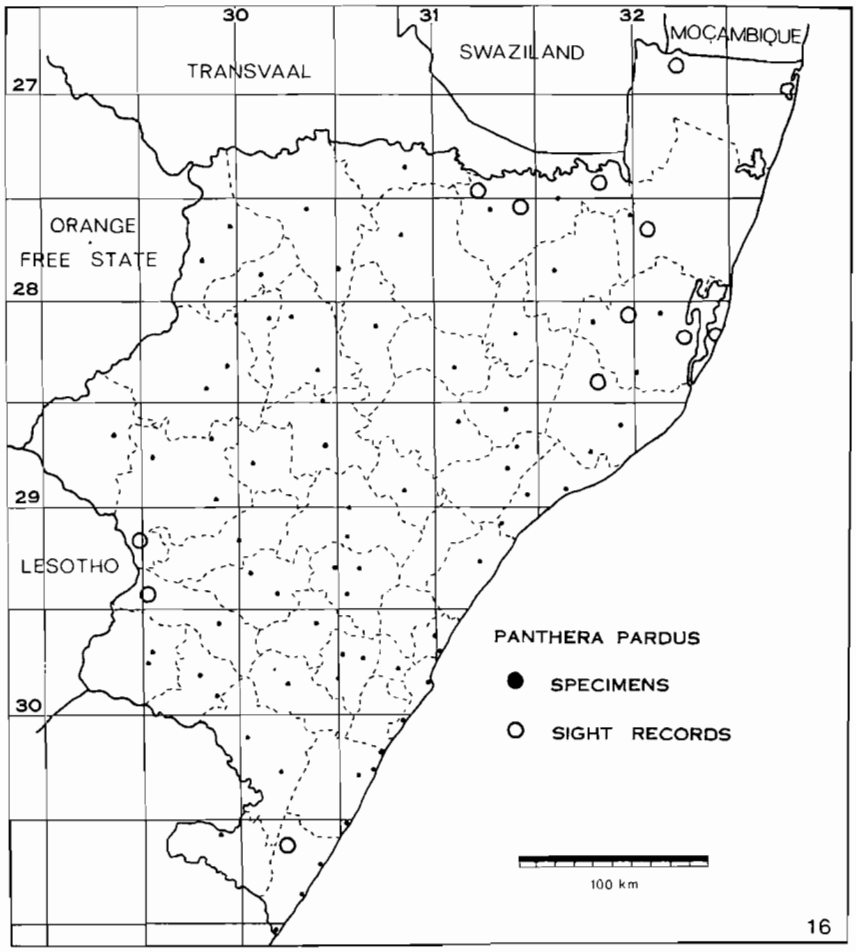
Genus *Canis*

Key to species

1. Dark saddle-shaped patch on the back; flanks rufous, without a dark stripe; back of the ears reddish . . . . . **mesomelas**
   No clearly defined saddle-shaped patch on the back; flanks grey with a dark longitudinal stripe; back of the ears grey . . . . . **adustus**

Canis mesomelas mesomelas Schreber, 1755. Cape of Good Hope (Map 15)
Distribution: Widely distributed in Natal.

Status: Common throughout Natal.
Canis adustus adustus Sundevall, 1846. Caffraria interior. Roberts designated the



type locality as Magaliesberg, Transvaal.

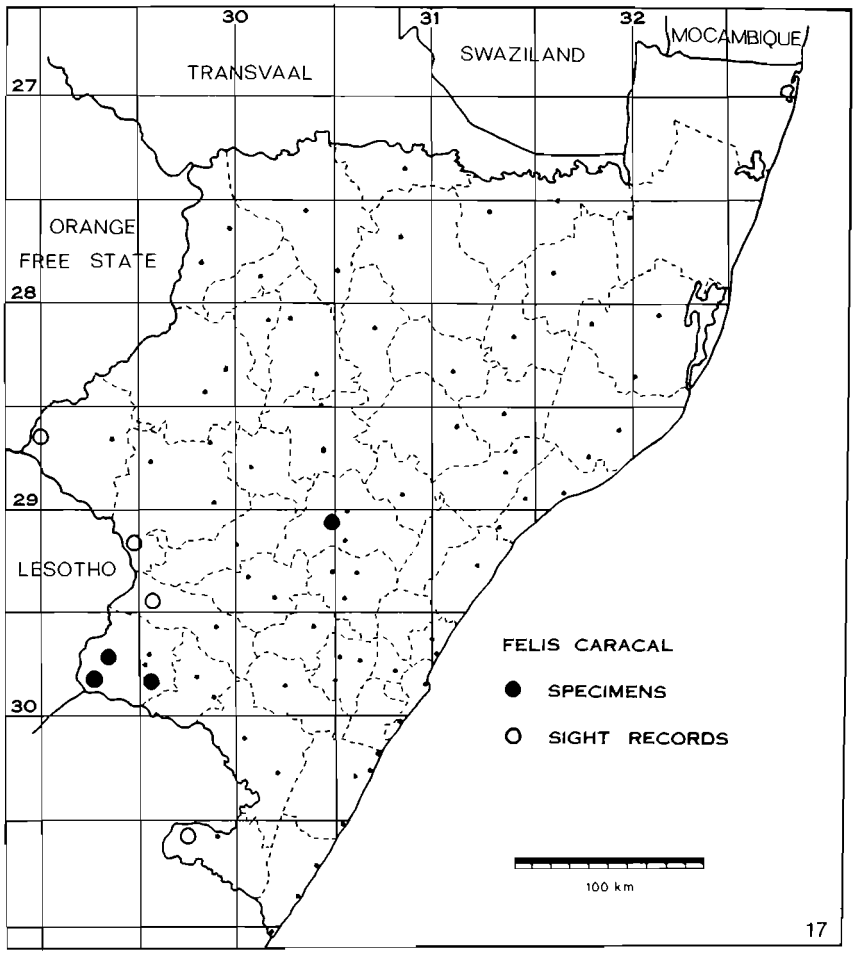
Distribution: There is a mounted specimen in the Natal Museum from northern Natal. Occurs in the Mkuzi Reserve and the flats in the Tshongwe and Mbazwane areas.

Status: Rare. Seldom seen, existing population would appear to be on the decline (Dixon 1964).

Family FELIDAE

Key to genera

1. Claws not capable of withdrawal into sheaths . . . . . **Acinonyx**
   Claws capable of withdrawal into sheaths 2
2. Adult skull over 180 mm in total length . . . . . **Panthera**
   Adult skull under 180 mm in total length . . . . . **Felis**



Genus *Acinonyx* Schreber, 1775

Acinonyx jubatus jubatus Schreber, 1775. Cape of Good Hope.

Status: This species was exterminated in Natal some time before 1930.

Since 1965 the Natal Parks Board carried out a programme of reintroduction and a total of 64 were released in Hluhluwe and Umfolosi Reserves. Many of these animals have settled down, some have bred but others have wandered out of these Reserves to Mkuzi. A few have been destroyed as far afield as Vryheid and Kwambonambi (Bourquin, Vincent & Hitchins 1971).

Genus *Panthera* Oken, 1816

Key to species

1. Adult skull exceeds 250 mm in length; unspotted in adult; tail with black terminal tuft . . . . . **leo**
   Adult skull less than 250 mm in length; body spotted; no terminal tuft on tail **pardus**

Panthera leo Linnaeus, 1758. Constantine, Algeria.
Panthera leo krugeri Roberts, 1929.

Distribution: Lions were recorded at various times before 1940 in the Ingwavuma and Ubombo Districts. In 1958 a single male appeared in Umfolosi Reserve later to be joined by a female in 1965 (Steele 1970). As the population increased, they spread into the Corridor and Hluhluwe Reserve. There has also been a tendency for young males to wander northwards on to adjoining farms and even as far afield as Mkuzi Reserve (Bourquin, Vincent & Hitchins 1971). In 1975 the population was estimated at 120–130 in Mfolosi, Corridor Hluhluwe complex.

Panthera pardus Linnaeus, 1758. Egypt (Map 16)

Distribution: These are fairly common in Hluhluwe, Umfolosi and Mkuzi Reserves; rare in Itala, Giants Castle, Oribi Gorge, Ndumu and around Lake St Lucia. Rarely occur outside Reserves.

Genus *Felis* Linnaeus, 1758

Key to species

1. Ears elongate and tufted at the tips with long black hairs; back of the ears predominantly black . . . . . **caracal**
   Ears not elongate, not tufted and not black at the back 2
2. Body colour predominantly grey without defined spots; tail more than half the length of the head and body . . . . . **libyca**
   Body colour predominantly ochre with black spots; tail less than half the length of the head and body 3
3. Size large; legs long; shoulder height more than 38 cm . . . . **serval**
   Size small; legs short; shoulder height less than 25 cm . . . . **nigripes**

Felis caracal caracal Schreber, 1776. Table Mountain, Cape Town (Map 17)

Distribution: This species occurs in the southern part of Natal and along the escarpment of the Drakensberg. A single specimen has been collected from Rietvlei near Greytown, but this probably strayed out of its normal range.

Status: Rare.

Felis libyca Forster, 1780. Gafsa, Tunis *Felis libyca cafra* Desmarest, 1822. Caffraria (Map 18)

Distribution: Widely distributed in Natal but absent from Zululand Reserves.

Status: Common in Royal National, Giants Castle, Loteni, Kamberg and Oribi Gorge Reserves. Rare elsewhere.

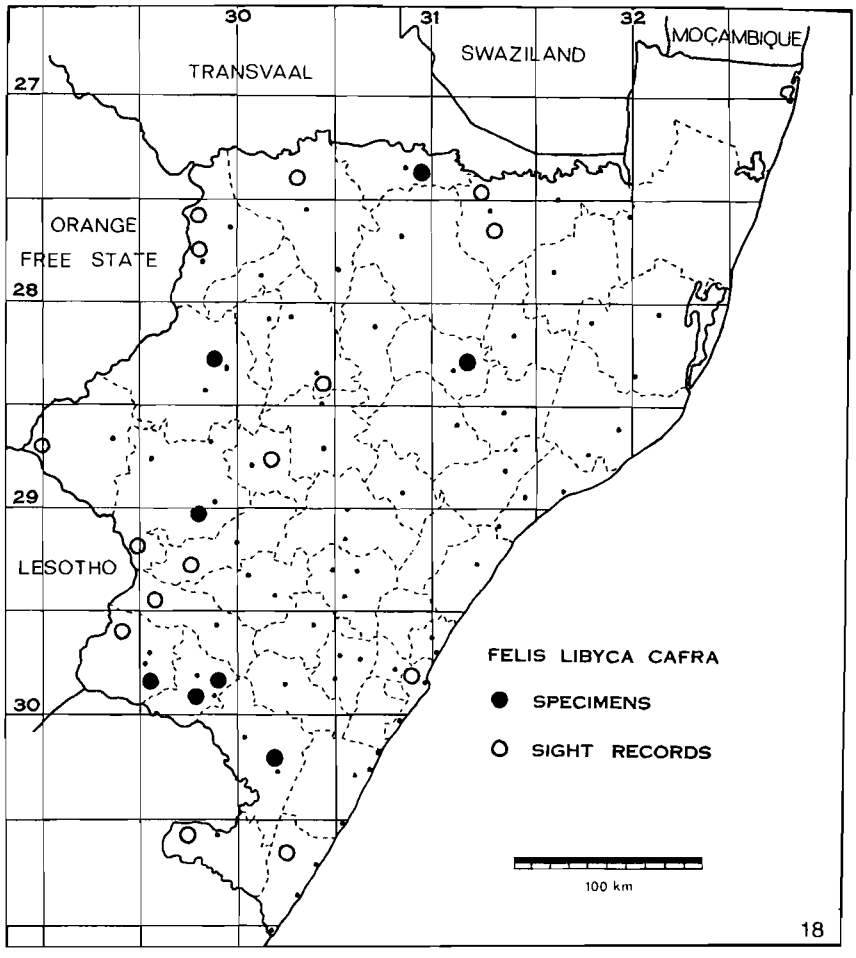
Felis serval serval Schreber, 1776. Cape of Good Hope (Map 19)

Distribution: This species is widely distributed in Natal except in the open grassland areas of the midlands.

Status: Common in Giants Castle and rare in Kamberg, Ndumu, Mkuzi, Umfolosi, Loteni, Oribi Gorge, Hluhluwe and Royal National Reserves. Rare outside Reserves.

Felis nigripes nigripes Burchell, 1823. 'Barchapin Country' near Kuruman, Cape Province.

Distribution: Has not been collected in Natal; sight records are available from Royal National and Loteni Reserves.



Family HYAENIDAE

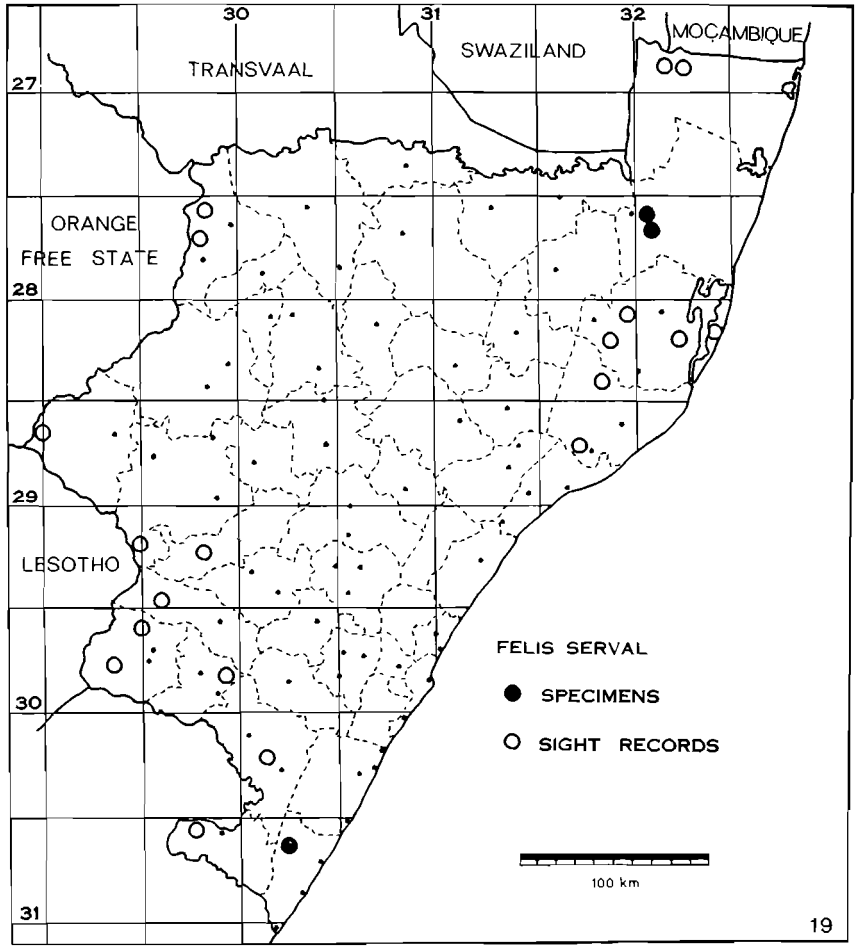
Key to genera

Ears pointed, heavy mane along the back, body without spots . . . . **Hyaena**
Ears rounded, no mane along the back, body spotted . . . . . **Crocuta**

Genus *Hyaena* Brisson, 1762

Hyaena brunnea Thunberg, 1820. Cape of Good Hope.

Distribution: There is a mounted specimen in the Natal Museum. A skull was found in the Royal National Park in 1974 (A. Schofield). Specimens were shot on the Nsumu Flats in Zululand in 1948 and in the Vryheid District in 1970. One was sighted in the Corridor between the Umfolosi and Hluhluwe Reserves in 1961 (D. R. M. Stewart). Status: No breeding population in Natal but individuals may appear from time to time.



Genus *Crocuta* Erxleben, 1777

Crocuta crocuta Erxleben, 1777. Guinea, Aethiopia, 'ad Caput bonae spei'. The type locality was designated Senegambia by Cabrera (1911) (Map 14)

Distribution: Common in Hluhluwe, Umfolosi and Mkuzi Reserves; rare on the western side of Lake St Lucia. No resident population in Ndumu but odd individuals enter the Reserve; the most recent recorded on 10 July 1974.

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